Remarks:

Applicant appreciates the Examiner's prior art search and careful examination of this application, as well as the allowance of claims 10-13.

Claim 1 has been rejected under 35 U.S.C. 102(e) as being anticipated by USP 6,971,771, Kanematsu et al.

Kanematsu '771 discloses a method for making a composite optical component. A portion of the optical functional device is partially inserted into a substantially U-shaped channel of a holding device. The optical functional device is subjected to plastic deformation by heating to relieve the stresses between the two components. The optical functional device is slidably fitted into the holding device such that, when the optical functional device is subjected to environmental temperature variations, it will remain straight and undistorted, supported by the holding device.

The examiner specifically points out the embodiments disclosed in Figures 13A – 14 (Column 15, Lines 25 – 65) and Figures 18A-18F (Column 19, Lines 5 – 30) as exemplary of Kanematsu and its applicability as anticipatory prior art to the present invention. Close scrutiny of these embodiments (and indeed of all the embodiments of this '771 patent) indicates that what is disclosed, taught, and claimed in the present invention is not disclosed or taught in any way by Kanematsu '771.

Referring to Figures 13 and 14 in '771, an optical functional device 110 defines two ribs 110a, and these ribs 110a further define hemispherical contact protrusions 110b. These ribs 110a and their corresponding protrusions 110b are inserted into U-shaped channels 111a in the holding device 111.

It can be seen in Figure 13c (which is a section view along section B of Figure 13a) that the hemispherical contact protrusions 110b are not continuous, but rather are intermittent, and this is confirmed by the specification, Column 15, lines 35 – 40, which states: ***"Hemispherical contact protrusions 110b are provided at specified intervals on both upper and lower sides of the aforementioned ribs 110a and 110a of the lens member 110, while a slender sliding groove 112 having V-shaped section is formed on the bottom surface of the holding parts 111a of one of the enclosure 111."*** Therefore, this optical functional device 110 does not have ***substantially the same profile from its first end to its second end.***

Claim 1 currently reads (with **bold** highlights added now to emphasize the portions to be discussed):

1. A process for making a composite profile, including at least one core piece and one insert piece, each having a top surface and a bottom surface, and a length extending from a first end to a second end, and **each having substantially the same profile from its first end to its second end,** wherein said core piece defines a first channel sized to receive said insert piece, said channel extending lengthwise from said first end to said second end, comprising the steps of:

providing a crush rib between the bottom surface of the insert piece and the channel; and

pressing said insert piece into said first channel **to deform the crush rib until the top surfaces of the insert and the core are aligned.**

Kanematsu '771 does teach a composite profile including at least one core piece (the holding device 111 could be considered the core piece) and an insert piece (the optical functional device 110 could be considered the insert piece as at least a portion of the optical functional device 110 is inserted into the U-shaped channels 111a of the core piece 111).

As indicated earlier, the optical functional device 110 defines ribs 110a, and these ribs 110a further define hemispherical contact protrusions 110b which "are provided at specified intervals on both upper and lower sides of the ... ribs 110a...." (See Column 15, lines 35 and 36). Since the hemispherical protrusions 110b are intermittent, the optical functional device 110 does not have substantially the same profile from its first end to its second end as claimed.

The Examiner may consider the hemispherical contact protrusions 110b to be crush ribs, even though there is no reference anywhere in the specification to these protrusions 110b being crushed, and in fact it is highly unlikely that these protrusions 110b would be crushed as their ability to slide past the holding device 111 would then be seriously compromised. In any event, in accordance with claim 1, these protrusions 110b would have to be ***between the bottom surface of the insert piece and the channel***, and then the insert piece 110 would have to be pressed into the channel ***to deform the crush rib until the top surfaces of the insert and the core are aligned***. The Kanematsu '771 specification and drawings do not disclose any deforming of any crush ribs, let alone disclosing such a deformation until the top surfaces of the optical functional device 110 (the insert piece) and the holding device 111 (the core piece) are aligned. Thus, Kanematsu '771 does not anticipate the present invention.

Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanematsu '771 in view of Ogi, USP 4,261,947.

Ogi '947 discloses a method for manufacturing hollow plastic articles by filling a jointing groove between the parts with heated and plasticized or molten plastic material at such a temperature that the plastic material injected at the

jointing groove fuses the plastic material of the articles at their contact surfaces. Ogi does not coat the part but only fills a groove in the part.

In Ogi, the hollow plastic articles are held together by suitable jigs or fixtures (See Column 3, lines 36 – 38), and the molten plastic is injected only at the jointing groove so as to fuse the contact surfaces of the articles to secure the articles together into a single piece. The use of jigs or fixtures to hold the two parts together would make it impossible to feed the part through an extrusion die to coat the part as recited in claim 2.

It is not at all clear how or why a person of ordinary skill in the art would find it obvious to combine the teachings of Kanematsu and Ogi. In the Kanematsu reference, it is desirable for the two parts to be able to slide relative to each other and for the optical functional device to see a clear image. Ogi would fix the parts relative to each other so they could not slide, and, to the extent it added plastic to the joint to fix the parts together, it would adversely affect the functionality of the optical functional device. Thus, a person of ordinary skill in the art would not have any motivation to make such a combination.

Further, the combination would not produce the invention recited in claim 2. There is no teaching in Kanematsu to provide a crush rib between the bottom surface of the insert and the channel and to press the insert into the channel to deform the crush rib until the top surfaces of the insert and the core are aligned, and there is no teaching in Ogi to pass such an assembly through an extrusion die to coat the assembly. Therefore, combining those references would not make the invention recited in claim 2.

With respect to claim 4, if the angled sides of the guide in Figure 11 of Kanematsu are considered to provide a wider gap near the top than further into the core, then it is not clear where the crush rib is on the bottom side, which should be opposite the top.

With respect to claim 5, Kanematsu does not teach forming a wider gap by providing a recessed shoulder on the insert. Instead, Kanematsu makes the gap wider by flaring the sides of the core.

Claim 7 recites a recessed shoulder on the side surface of the insert, forming a gap between the core and the insert above the recessed shoulder, with the gap being filled with the coating. Such a gap 40 is shown in Figure 7 of the present application, directly above the shoulder on the insert. Figure 1 of the Ogi reference shows a shoulder 5, but the connecting piece follows the shape of the shoulder, so a gap is not formed above the recessed shoulder as claimed.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanematsu '771 in view of DeRees, USP 5,670,109.

DeRees '109 discloses a method for assembling vehicle body members using an injected adhesive which flows through a predesigned channel cavity formed at the interface of the vehicle body members. As indicated in Column 3, lines 4-8, the body components may be held together by mechanical devices (such as bolts) so that the adhesive injection process may be carried out.

The use of adhesives to hold components together is widely known. However, it would not have been obvious to combine the teachings of DeRees '109 with the teachings of Kanematsu '771, nor would it have been obvious to combine these teachings to arrive at the present invention, as explained below.

Kanematsu '771 relies on a slidable relationship between the insert 110 and the core 111 to ensure that the insert 110 will not distort due to thermal stresses, despite the insert being supported by the core 111. The use of adhesives in the Kanematsu reference to fix the insert and core together would render the device non-functional. Therefore, such a combination would not be obvious to one of ordinary skill in the art.

Since all the claims recite an invention that is both new and unobvious in view of the prior art, Applicant respectfully requests allowance of all the claims now pending in the present application. If there are any remaining problems with this application, Applicant's attorney would appreciate a call from the Examiner to help expedite their resolution.

Respectfully submitted,

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